Morgan Stanley

MORGAN STANLEY RESEARCH
NORTH AMERICA

Morgan Stanley & Co. Incorporated

Robert Wertheimer
Robert.Wertheimer@morganstanley.com
+1 212 761 6334

Joseph O'Dea
Joseph.O'Dea@morganstanley.com
+1 212 761 0271

Alexander Vecchio
Alexander.Vecchio@morganstanley.com
+1 212 761 6233

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Request your ballot.

May 16, 2011

Stock Rating
Overweight

Industry View
Attractive

Caterpillar

CAT Oil & Gas Primer: Exceptional Business

Investment conclusion: CAT's oil and gas businesses are exceptional but data and market understanding of this business is weak versus more easily analyzed construction and mining. We estimate a global installed base of ~130 million horsepower in oil and gas, and we break down end markets to shed light on CAT's exposure. CAT's market shares are high and fundamentals are strong. Global oil and gas spending nearly tripled last cycle and should grow another 40% by 2015 versus 2010.

CAT's oil and gas end markets in rough order of importance: turbines and diesels for pipeline compression and transport, diesels for offshore support vessels, turbines for offshore production on fixed and floating platforms, diesels for offshore drilling, and diesels for onshore drilling and fracking, which is growing incredibly fast in importance. CAT market shares range from 90%+ in engines for offshore jack-up drilling rigs to almost nothing on drillships today.

Two secular positives in deepwater and shale gas: Both use higher horsepower vs conventional on land production. Shale gas has gone from nothing to as much as 10% of global installed horsepower in oil & gas in a decade. Fracking hp boomed then hit a lull with US gas fracking, but oil shale and global fracking are large oppt'ys. Deepwater production platforms are turbine intensive, for platform power and for gas compression.

Our conversations too often revolve around yellow construction equipment: History and data availability skew the debate on CAT towards construction, and competitors like Sany are a legitimate and front-of-mind concern. But oil and gas, mining, and electric power are all markets where CAT has high share, substantial competitive advantages, potential for 20% margins and no major EM competitors, that grew ~3x in 5 years last cycle, with more growth ahead as resources get harder to extract. Please also see our mining equip chartbooks and MWM electric power note for more detail.

Key Ratios and Statistics

Reuters: CAT.N Bloomberg: CAT US
Machinery / United States of America

Price target	**$127.00**
Shr price, close (May 13, 2011)	$106.33
Mkt cap, curr (mm)	$69,355
52-Week Range	$116.42-55.51

Fiscal Year ending	**12/09**	**12/10**	**12/11e**	**12/12e**
ModelWare EPS ($)	**1.23**	**4.15**	**6.90**	**9.10**
Prior ModelWare EPS ($)	**-**	**-**	**-**	**-**
P/E	**46.2**	**22.6**	**15.4**	**11.7**
Consensus EPS ($)§	**2.18**	**4.15**	**6.90**	**8.99**
Div yld (%)	3.0	1.8	1.6	1.6

Unless otherwise noted, all metrics are based on Morgan Stanley ModelWare framework (please see explanation later in this note).
§ = Consensus data is provided by FactSet Estimates.
Caterpillar is a leading global manufacturer of construction and mining equioment and a global leader in turbines and diesel engines. The company also provides financial services, logistics, and remanufacturing.
e = Morgan Stanley Research estimates

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Table of Contents

Overview of Oil & Gas Engine / Turbine End Markets 3

End Markets Overviews

Pipelines 5

Onshore Drilling
US Land Rigs 6
Pressure Pumping / Fracturing (“Frac”) Units 7

Offshore Drilling
Jack-up Rigs 8
Semi-submersibles 9
Drillships 9

Offshore Production
Fixed Production Platforms 10
Floating Production Platforms 10
Offshore Supply Vessels 11

CAT Risk-Reward Snapshot 12

Appendix – Overview of CAT Solar Turbine Business 13

Overview of Oil & Gas Engine / Turbine End Markets

Summary & Conclusions

Oil and gas markets have structurally improved for CAT, with global capex nearly tripling last cycle. CAT has exceptionally strong businesses in this market, where its core strengths of durability, service, and proven reliability are critical. Furthermore, there are two major trends which accelerate the structural opportunity for CAT: 1) the gradual shift of production from easier, but aging, onshore fields to more power intensive, challenging offshore production; and 2) the rise of shale gas, shale oil, and hydraulic fracturing (fracking), with huge power requirements.

Start with the basics: CAT sells diesel engines and Solar brand gas turbines to many applications in the oil patch. Horsepower required per application can range from a tiny 50 hp engine to 100MW on large offshore structures.

CAT oil and gas revenues are undisclosed – we estimate they peaked at around $8 billion last cycle. Solar turbines revenues topped out at $3.5 bn; we estimate the rest from mix of new engine deliveries that CAT formerly disclosed in its annual reports. Margins are also largely undisclosed, but oil and gas could have been up to 30% of CAT M&E profits at peak on our estimates. For a while, Solar accountable profit margins were disclosed in 10K and Q filings, showing the division as highly profitable, peaking at 23% in 2009. Still, there may be room for upside to margins. The diesel portion looks to have had mid-teens margins at best; leading oil service/equip companies can do 20%+.

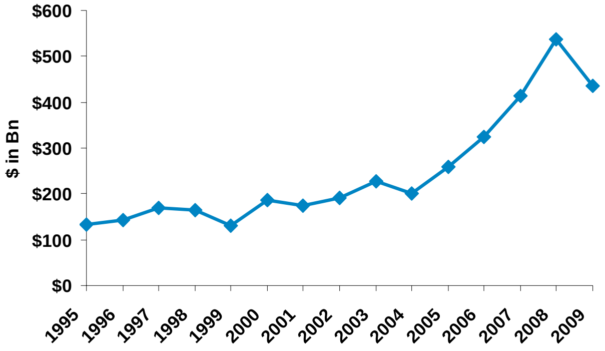
What we've done: We don't have market share or end market split data from CAT, only some general comments. So we've estimated global installed horsepower and annual sales using data from a half-dozen oil services databases, government studies on pipelines, industry calls and channel checks as well as oil service company presentations. We walk through each major end market in oil & gas for CAT, showing revenue opportunity per unit as well as market shares where we have them. Share ranges as high as 95% in jack-up rigs, and likely not that far below on US pipelines and turbines, to under 5% in drillships.

What surprised us: Fracking is a huge trend, one big enough to form 10% of global installed horsepower despite being only a few years old and largely a North American market as of yet. We estimate that fracking's share of global oil & gas horsepower sales had climbed up to ~25% at peak in 2008. There may be have been a lull in fracking recently, but major upside exists as the market expands globally and as oil shale liquids-rich gas plays grow. Oil service vessels also consume a surprisingly large amount of horsepower.

Outlook – structurally bullish: Oil and gas capex will remain permanently elevated as oil becomes harder to find and extract and as drilling and production investments shift to more expensive offshore environments. The offshore trend is highly beneficial to CAT, as it has solid engine power share in large offshore drilling rigs, production platforms and service vessels that require substantial amounts of power to operate. Fracking shale for gas and oil are even better markets, where Cat has high share.

Exhibit 1

Global O&G Capex & Exploration Spend – Est. up 40% by 2015 vs. 2010

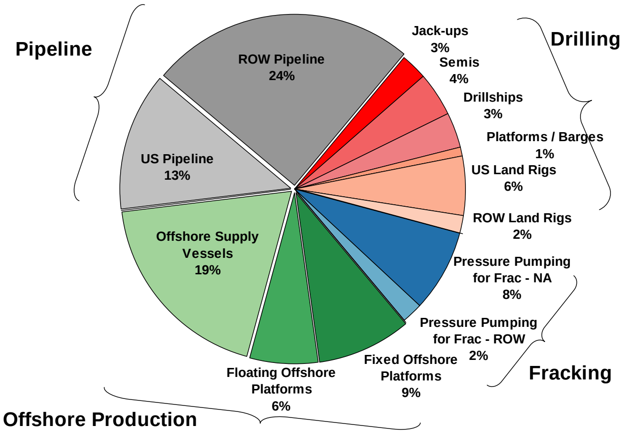


Note: Top 200 public US O&G companies and top 100 non-US O&G companies
Source: Oil & Gas Journal, Rystad, Morgan Stanley Research

Exhibit 2

MSe Global Installed O&G Base in Horsepower:

we identified ~130 million hp, the equivalent of 60-90 thousand CAT 3500 Diesels, or ~$50 - $65 bn



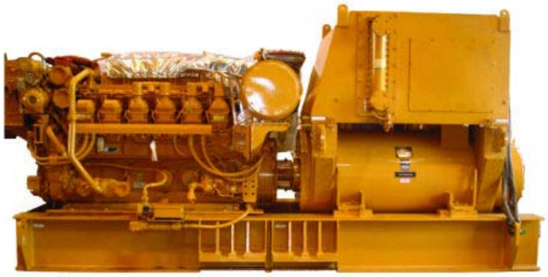
Source: Oil & Gas Journal, Rigbase, Baker Hughes, Spears & Associates, Douglas-Westwood, ODS Petrodata, Rystad Energy, Floatec, Marcon International, Natural Gas Statistics Sourcebook, EIA, MMS, INGAA, BOEMRE, Rigzone, Morgan Stanley Research

Diesels vs Turbines
CAT sells both diesel engines and its Solar turbines to the oil and gas end markets. Diesels are sometimes referred to as reciprocating or piston engines, since the fuel can be natgas or even crude rather than refined diesel. CAT's turbines are designed for durability and efficiency; competitors like GE and Rolls Royce are similar, but being derived from aircraft engines may be slightly more skewed to weight savings.

Diesels excel at delivering variable power: for instance when a drilling rig pushes into rock and then backs off, or when a pressure pumping rig to frack shale pushes fluid into the formation. In pipelines diesels/reciprocating engines are used to boost pressure from the wellhead to gathering stations, before turbines take over for much of the actual transport along transmission pipelines. In marine applications diesels obviously vary power up and down constantly with the speed of a vessel.

Exhibit 3

3500 Diesel: 700 to 2500 hp, 8 to 20 Cylinders

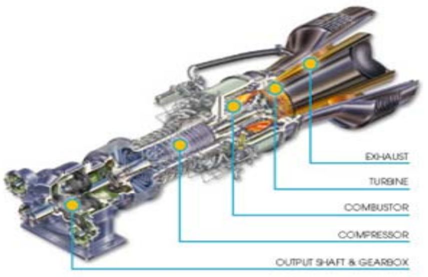


Source: Company Data, Morgan Stanley Research

Turbines excel at power to size/weight and operate best under constant load. Turbines provide electric power for offshore production platforms, compress and push gas along in pipelines, and compress gas offshore for reinjection into reservoirs or for export back to land via pipeline.

Exhibit 4

Solar Titan 130 Turbine: 20,500 hp / 15.2MW



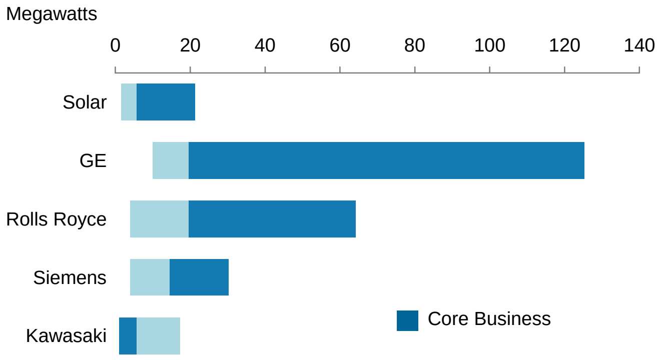
Source: Company data, Morgan Stanley Research

CAT's businesses: CAT manufactures big 3500 diesels primarily at its engine facility in Lafayette, IN along with smaller quantities of the larger 3600 diesel and the new C175, which overlaps both in hp and has better power/weight. At 70 engines a day, Lafayette could do 17,000 3500's a year, with 1,000-2,000 destined for mining trucks, and with gensets also a big market. Lafayette is currently not producing at full capacity. The company also makes or assembles 3500 engines in India, but only in small quantities, and is adding a larger facility in China. CAT is aiming to enter the onshore production, drillship and semisub rig markets with its larger, mostly marine MaK branded engines.

Solar turbines: Solar is far and away the leader in oil/gas in its power range, with market share well above 50%, and probably as high as 90% in areas like US pipelines and platforms. There are a number of competitors with overlapping power ranges, but in reality each has a sweetspot, we believe. With the newly launched Titan 250 CAT can now approach 22MW, we believe 50MW is the high end in the oil patch, but with much of the volume in smaller Solar-sized turbines.

Exhibit 5

Turbines Competitive Landscape



Source: Company Data, Morgan Stanley Research

Exhibit 6

CAT Summary Market Shares

	1970's	1980's	1990's	2000's	Avg
Jack-ups	88%	88%	72%	86%	88%
Semisubmersible drilling rigs	74%	32%	42%	46%	45%
Drillships	76%	18%	4%	0%	4%
Offshore Supply Vessels					35%
Turbines/pipelines					50-90%

Source: Rigbase, Marcon International, Diesel & Gas Worldwide, Morgan Stanley Research

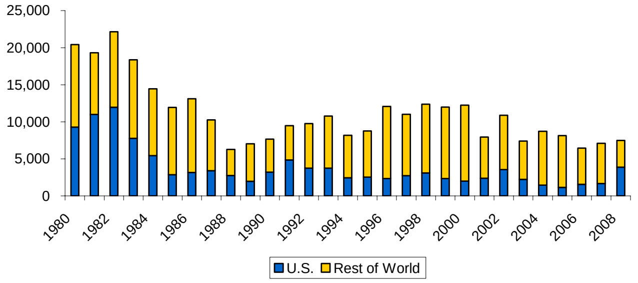
Pipelines

Pipelines are the largest market for CAT oil and gas, and maybe the hardest to forecast. Growth with gas demand plus a little may be the simplest way to think about it. Construction is global and not necessarily relevant: gas can be transported by increasing pressure along a pipeline rather than by building out additional miles. Environmental and energy efficiency retrofits have also been major drivers, making miles build a tricky way to forecast – 2/3rds of the increase in total pipeline compression hp over the last 4-5 years was increased compression rather than new pipeline. Some markets use electrically powered pumps to provide pressure/transport along a pipeline, Russia being a major example. But often pipelines go through remote areas and so gas is the fuel of choice.

The US pipeline network uses 16.9 million horsepower to transport gas around the country, which is very roughly the equivalent of around 12,000 CAT 3500 engines. Power needs to be added every 50-100 miles to recompress and push along the gas. As of 2006, there were 1,201 compressor stations on the US pipeline network, with more than 4,700 individual compressor units, or about 4 units per station, averaging about 3,590 horsepower per unit. Turbines provide most of the power on the network, while diesel/recips ramp up pressure in gathering stations before entering the main transmission pipeline.

Exhibit 7

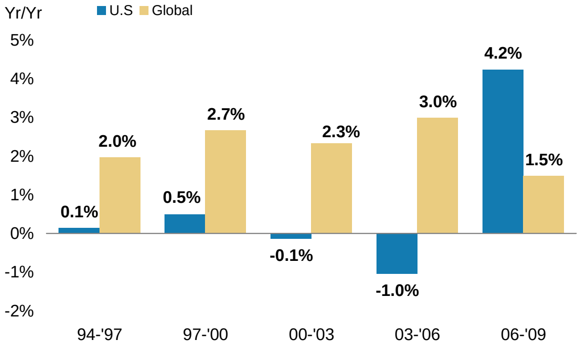
Global Pipeline Construction, miles



Source: Oil & Gas Journal Energy Database, Morgan Stanley Research

Exhibit 8

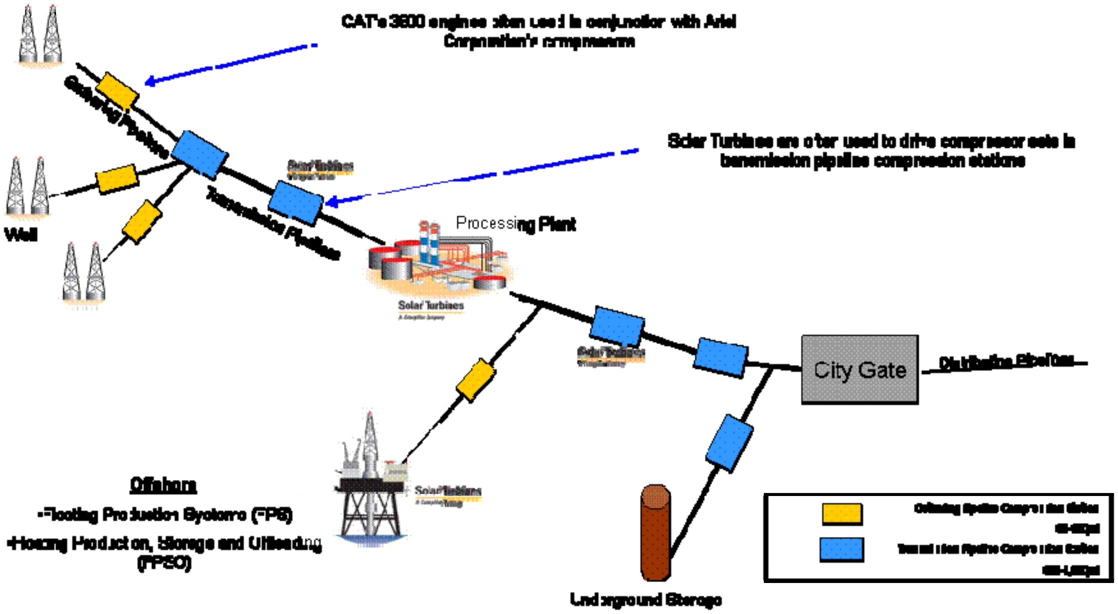
Global Gas, Shale Gas Accelerated US Production



Source: EIA, Morgan Stanley Research

Exhibit 9

Engines & Turbine Functions in Pipelines


CAT's 3600 engines often used in conjunction with Ariel Corporation's compressors
Solar Turbines are often used to drive compressor sets in transmission pipeline compression stations
Gathering Pipeline
Well
Transmission Pipeline
Processing Plant
Solar Turbines
City Gate
Distribution Pipelines
Offshore
-Floating Production Systems (FPS)
-Floating Production, Storage and Offloading (FPSO)
Underground Storage
Gathering Pipeline Compression Station
Transmission Pipeline Compression Station

Source: Company data, Morgan Stanley Research

US Land Rigs

US drilling on land had traditionally been for conventional oil or gas, with a vertical hole punched straight into the ground. More recently horizontal drilling and fracking have taken over, making many older rigs obsolete, and leading to higher hp on some of the newer ones.

Drilling rig sites typically require total power of 2,000-4,000hp; the actual drilling might be 1,750 with additional diesel gensets powering camp lighting, heating, AC in crew quarters, etc.

We estimate that each rig could be a $1-2M revenue oppty for CAT, depending on content sold through and power. The US has an installed base of ~2,500 rigs, roughly 1,700 of which are currently drilling, some of which may never drill again. Our MS Oil Services team recently raised their US land rig count growth projections to ~240 units / year as oil-driven drilling demand accelerates with higher crude prices.

Land rigs are classified by the hp capacity of the rig's drawworks, which ultimately determines the rig's total drilling capacity. A rig's hp depends on the type of well being drilled (gas vs. oil), and the depth of the well, among other factors. Most shale plays in the US are 10k+ ft deep and require 1,500+ hp rigs, while shallower oil / gas plays may only need <1000 hp mechanical rigs. Conventional vertical drilling rigs typically might run on 2-3 ~1,500 hp engine gensets. **While horizontal / directional drilling requires more power, the real horsepower in fracking is in the pressure pumping units, described on the next page.**

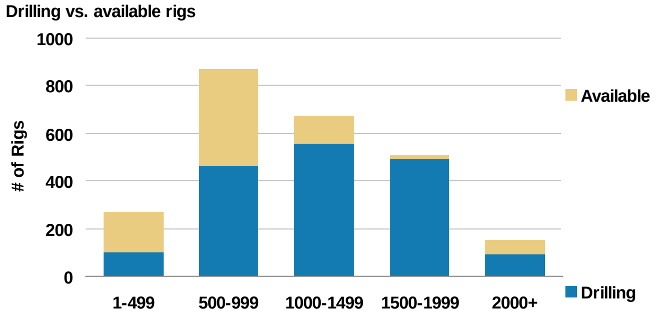
Exhibit 10

US Land Rig

Source: Nabors Industries, Morgan Stanley Research

Exhibit 11

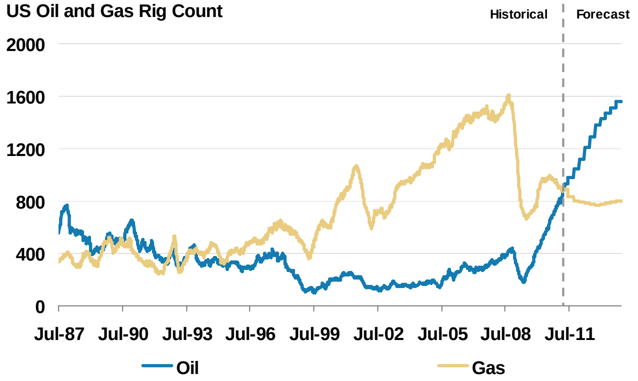
Current US Land Rig Count by HP



Source: Baker Hughes, Morgan Stanley Research

Exhibit 12

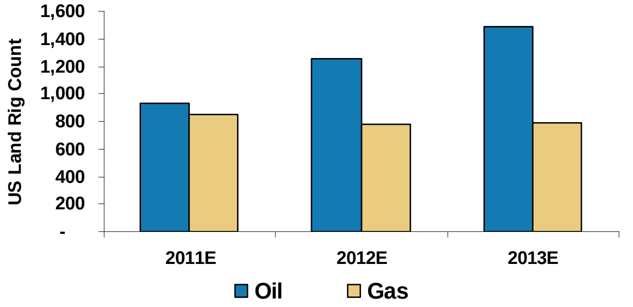
Oil rigs on the rise – first time since 1993 that 50% of all US land rigs are drilling oil



Source: Baker Hughes, Morgan Stanley Research Estimates

Exhibit 13

MS Oil Services Team US Land Rig Count Forecast



Source: Morgan Stanley Research Estimates

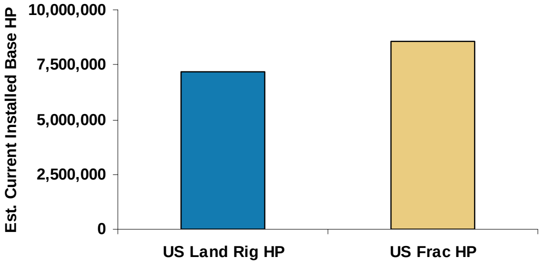
Pressure Pumping / Fracturing (“Frac”) Units

Fracking has been a revolution for gas supply in the US, and will likely go global; resource bases are higher ex the US. Simply put, fracking and pressure pumping involve a well that is drilled, turned sideways sub-surface and run along a long stretch of shale formation. Then, a mixture of water, sand and chemical additives is injected into the well under tremendous pressure, fracturing the shale and allowing gas or oil to flow.

Fracking is also a revolution in power demanded for oil and gas; pressure pumpers are powered by big 3500 size diesels, providing 2250 hp per unit and more than a dozen pressure pumping units can be used per well to fracture the rock. On average, there are about 4 frac units operating at each non-conventional rig. In just the few years since fracking has become commonplace, pressure pumping units have surpassed the entire decades-old US land drilling fleet (which is the largest globally by a long ways) in horsepower.

Exhibit 14

Fracking Has Added Significant Demand for Energy in US Gas Plays

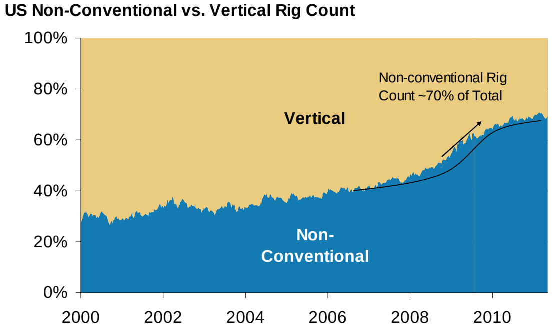


Source: Spears & Associates Inc., Morgan Stanley Research Estimates

We think CAT is the leading engine supplier to frac units, but Cummins and Detroit Diesel, the only other 2 major players, might not be far behind. CAT is currently the only OEM to offer both engines and transmissions to fracking units, giving it a competitive advantage, but Cummins is expected to begin offering transmissions in the latter part of 2011. We believe each pressure pumping unit is a $500k to $1 million opportunity for CAT.

Exhibit 15

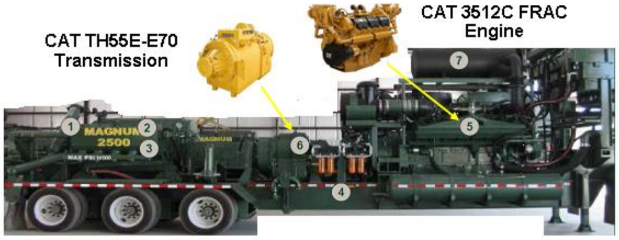
Non-conventional plays require 4-10x the HP of conventional vertical plays



Source: Baker Hughes, Morgan Stanley Research

Exhibit 16

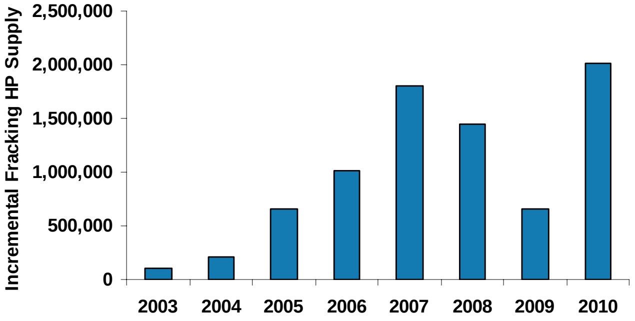
In addition to engines, CAT is selling more and more transmissions to frac units



Source: Frac Tech, Morgan Stanley Research

Exhibit 17

Liquids-rich gas plays could support recent surge in N.A. frac HP supply



Source: Spears & Associates Inc., Morgan Stanley Research

Offshore Rigs – Jack-ups

Jack-up rigs are the most common mobile drilling units in the shallow water (<500 ft) drilling market. Towboats move these rigs between drilling locations; once situated, a rig's legs extend to the sea floor and the hull is "jacked up" above the water. Jack-up rigs, typically powered by 4 to 6 engines, represent a $2-$4M revenue opportunity per rig for CAT – there are about 20-30 jack-ups built each year globally. Although they represent a relatively small portion of the total O&G engine market, CAT has a dominant position in jack-ups with ~90% of horsepower share in jack-ups installed today.

Exhibit 18

Historical Jack-up engine HP Share – CAT in dominant position

Jack-up Share	**1970's**	**1980's**	**1990's**	**2000's**	**Avg**
CAT	47%	54%	72%	86%	67%
EMD	41%	33%	0%	0%	20%
CAT+ EMD	**88%**	**88%**	**72%**	**86%**	**88%**
Wartsila	0%	4%	19%	11%	5%
JSC	2%	2%	0%	0%	1%
Kolomna	4%	0%	6%	0%	1%
ALCO	3%	0%	0%	0%	1%
Other	3%	6%	2%	3%	4%

Source: Rigbase, Morgan Stanley Research

Exhibit 19

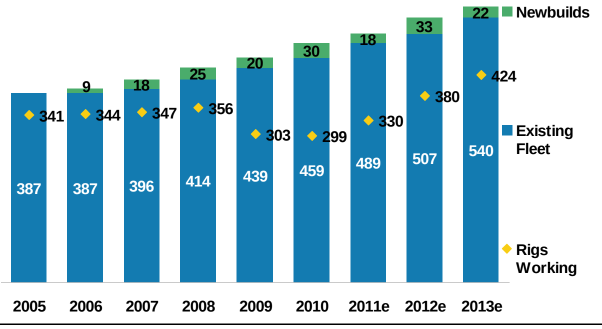
Historical Jack-up Details

Jack-ups	**1970's**	**1980's**	**1990's**	**2000's**
Jack-ups delivered	89	230	12	83
Engines delivered	356	981	65	419
Avg Engines per Jack-up	4.0	4.3	5.4	5.0
Avg HP per engine	1,605	1,385	1,828	2,170
Avg HP per Jack-up	6,421	5,907	9,902	10,956
CAT Share	**88%**	**88%**	**72%**	**86%**

Source: Rigbase, Morgan Stanley Research

Exhibit 20

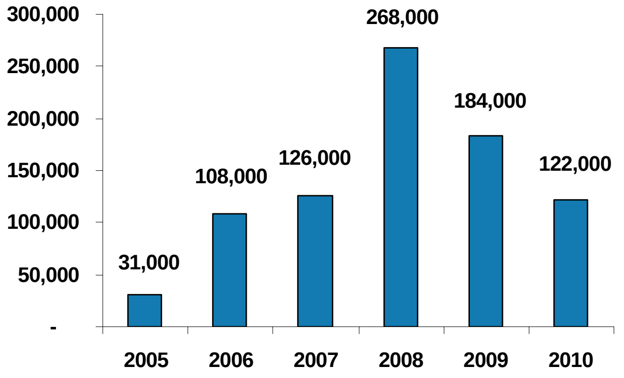
MS Oil Services Team Jack-up Newbuild Ests.



Source: ODS-Petrodata, Morgan Stanley Research Estimates

Exhibit 21

Jack-ups – Estimated HP Delivered



Source: Rigbase, Morgan Stanley Research

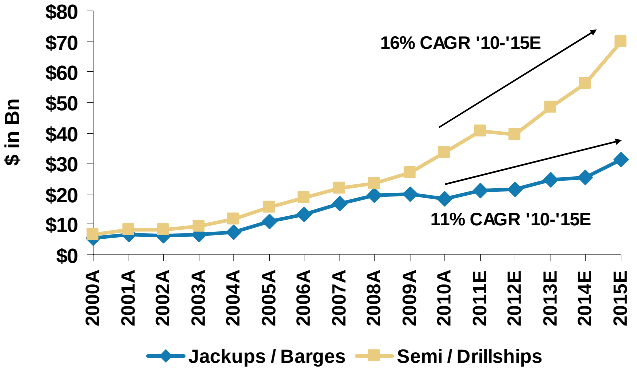
Exhibit 22

Jack-up Rig

Source: Schlumberger, Morgan Stanley Research

Exhibit 23

Deepwater rig investment expected to grow faster than shallow water rigs (Jack-ups)



Source: Rystad Energy, Morgan Stanley Research

Offshore Drilling Rigs – Floaters

Semi-submersible rigs (semis) and drillships are floating rigs (floaters) that drill in deep waters (>500 ft), where fixed structures like jack-ups are less practical. Floating rigs require much more power than jack-ups given their larger size and deeper well drilling capabilities. Floaters are typically powered by 6-10 engines for a total HP of 30,000 – 60,000 per rig. Each of the 20-30 floating rigs built per year can be a ~$5M engine revenue oppty, but CAT does not have the same market share dominance in floaters as it does in jack-ups. In semis, CAT has a ~45% share of total engine HP, while its presence in drillships is minimal.

Exhibit 24

Historical Semi Engine HP Share

Semi Share	**1970's**	**1980's**	**1990's**	**2000's**	**Avg**
CAT	30%	1%	21%	39%	26%
EMD	44%	31%	21%	6%	19%
CAT+ EMD	**74%**	**32%**	**42%**	**46%**	**45%**
Wartsila	2%	25%	36%	43%	27%
Bergen	15%	13%	5%	4%	6%
Rolls Royce	0%	0%	0%	4%	4%
Nohab	0%	10%	4%	0%	2%
Other	9%	20%	13%	5%	17%

Source: Rigbase, Morgan Stanley Research

Exhibit 25

Historical Semi Detail – Large increase in avg HP per Semi over last decade

Semis	**1970's**	**1980's**	**1990's**	**2000's**
Semis delivered	64	73	15	38
Engines delivered	272	304	94	274
Avg Engines per Semi	4.3	4.2	6.3	7.2
Avg HP per engine	2,380	2,808	3,096	5,874
Avg HP per Semi	10,114	11,693	19,400	42,351
CAT Share	**74%**	**32%**	**42%**	**46%**

Source: Rigbase, Morgan Stanley Research

Exhibit 26

Semis and Drillships

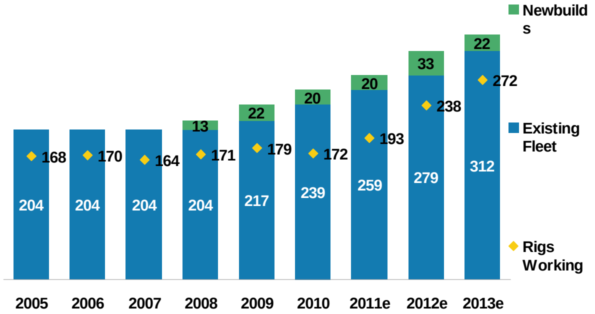
Semi-submersible

Drillship

Source: Company data, Morgan Stanley Research

Exhibit 27

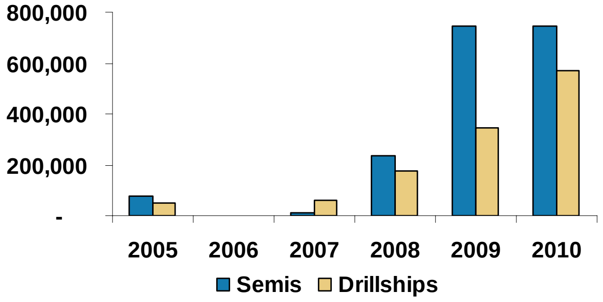
MS Oil Services Team Floater (Semis + Drillships) Newbuild Ests.



Source: ODS-Petrodata, Morgan Stanley Research Estimates

Exhibit 28

Floating Rigs – Estimated HP Delivered



Source: Rigbase, Morgan Stanley Research

Exhibit 29

Historical Drillship Engine HP Share

Drillships	**1970's**	**1980's**	**1990's**	**2000's**	**Avg**
CAT	3%	6%	0%	0%	3%
EMD / GM	73%	12%	4%	0%	5%
CAT+ EMD / GM	**76%**	**18%**	**4%**	**0%**	**8%**
Wartsila	12%	53%	88%	56%	32%
MAN B&W	0%	0%	0%	29%	23%
MAN	0%	0%	0%	0%	8%
Other	12%	29%	8%	15%	29%

Source: Rigbase, Morgan Stanley Research

Exhibit 30

Historical Drillship Details

Drillships	**1970's**	**1980's**	**1990's**	**2000's**
Drillships delivered	13	8	7	21
Engines delivered	81	45	47	132
Avg Engines per Drillship	6.2	5.6	6.7	6.3
Avg HP per engine	3,383	2,832	6,743	8,190
Avg HP per Drillship	21,081	15,929	45,273	51,481
CAT Share	**76%**	**18%**	**4%**	**0%**

Source: Rigbase, Morgan Stanley Research

Offshore Production – Fixed & Floating Platforms

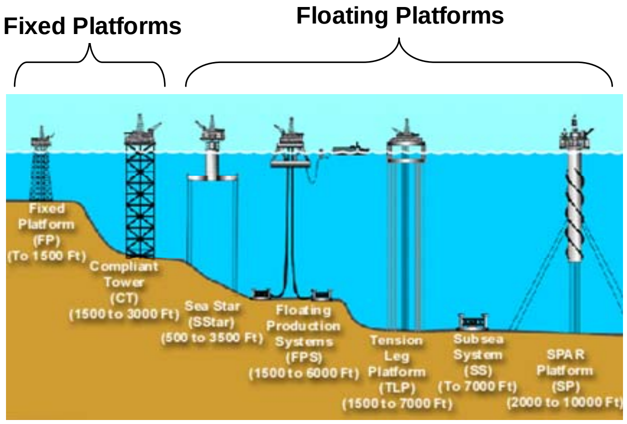
Secular shift to deepwater should drive incremental demand for CAT's high HP engines & turbines: In 2009, the average new deepwater discovery was ~150M oil equivalent barrels vs. ~25M for new onshore discoveries. With most shallow water basins in the world maturing / depleting, E&Ps are investing in more energy-intensive deepwater production infrastructure.

Offshore production platforms come in two types – fixed and floating platforms. The majority of fixed platforms operate in shallow waters, while floating production systems (FPSs) can operate in either shallow or deepwater, depending on the maturity of the field. The most common floating platform is an FPSO, which produces, processes, stores and offloads oil and gas in waters up to 10,000 feet deep. There are currently still more operating fixed platforms than FPSs (we don't have great data on fixed platforms, but think there's a few thousand globally vs. ~225 FPSs, though most of those fixed platforms are quite small), and investment in the latter is set to grow at a faster clip given increasingly large offshore discoveries. Our global oil services team expects 20-25 deepwater floating platforms to be installed per year over the next four years.

Turbines are the most suitable source of power generation for energy-intensive FPSOs: Fixed production platforms in shallow waters require 150kw to 2MW of power to operate. Deepwater platforms need more given their size and the incremental energy required for higher volumes of oil / gas. A typical deepwater platform producing 50k bpd (barrels per day), either fixed or floating, requires 15-30MW of energy for basic operations, i.e. generating electricity, lifting seawater, chemical injection pumps, etc. FPSOs that process and separate oil from gas run on gas turbines given their higher efficiency and more steady and consistent flow of power. Separated gas is either reinjected into the underground reservoir or compressed and exported via pipeline back to shore – every 1 bcf (billion cubic feet) / day of gas compression requires ~35-40MW of power *in addition to the power required for basic operations*.

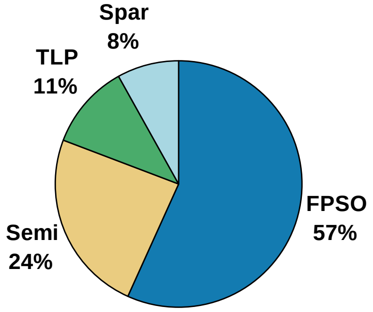
Some large floating platforms processing 1-2 bcf/day from several other off-site production platforms or subsea wells, run on 6 turbines generating a total of 100MW. We estimate the average floating deepwater platform can process 100 MMcf (million cubic feet) / day and runs on 3-4 turbines. Depending on its size, each FPSO can be a $20M-$40M rev oppty for Solar/CAT.

Exhibit 31
Floating vs. Fixed Production Platforms


Fixed Platforms
Floating Platforms
Fixed Platform (FP) (To 1500 Ft)
Compliant Tower (CT) (1500 to 3000 Ft)
Sea Star (SStar) (500 to 3500 Ft)
Floating Production Systems (FPS) (1500 to 6000 Ft)
Tension Leg Platform (TLP) (1500 to 7000 Ft)
Subsea System (SS) (To 7000 Ft)
SPAR Platform (SP) (2000 to 10000 Ft)

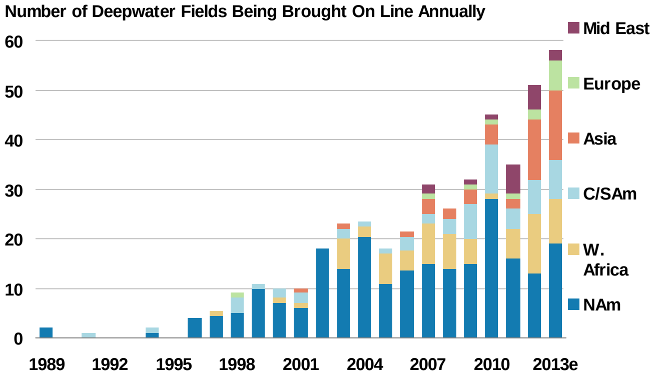
Source: Floatec, Morgan Stanley Research

Exhibit 32
FPSOs Are Majority of New Deeper Offshore Production System Installed Base



Source: Floatec, Morgan Stanley Research

Exhibit 33
Secular shift to deepwater drives demand for high HP rigs and platforms, and / or Support Vessels



Source: ODS Petrodata, Morgan Stanley Research

Offshore Supply Vessels

With increasing offshore and deepwater production comes a flotilla of support vessels to supply and service the drilling rigs and production platforms. Our channel contacts as well as fellow analysts at MS suggest the build out of these vessels was intense in recent years, meaning some downside could be ahead in this important market. Longer term, fleets should grow along with offshore production.

The predominant asset classes within the offshore supply vessel business are the anchor handling towing supply vessels (AHTSs) and the platform supply vessels (PSVs). There are currently ~2,500 of these vessels operating worldwide, with the largest markets servicing the major offshore drilling basins – GoM, North Sea, West Africa, Brazil and Southeast Asia. There are also several thousand smaller offshore support vessels such as crew boats, utility and standby safety vessels.

Anchor handling / towing supply vessels (AHTS) are the largest class of offshore supply vessels, ranging from 180 to 250 feet in length and from 4,000 to 20,000+ in total hp. AHTS vessels are used to tow drilling rigs as well as other equipment and to set and position anchors for certain types of semi-submersibles. AHTS vessels skew international.

Platform supply vessels (PSV) are the workhorses of the supply vessel industry. They vary in length from 180 to 200+ feet and in power from 2,000 to 5,000hp. Their primary use is for transporting drilling related equipment including drill pipe, drilling and completion fluids, cement and fuel.

Crew and utility boats range from 25 to 150 feet and are typically capable of higher speeds relative to the PSV or AHTS classes. Crew boats are used for personnel transport, and are not equipped to transport the heavy materials as is the PSV class. Utility vessels are used for general maintenance.

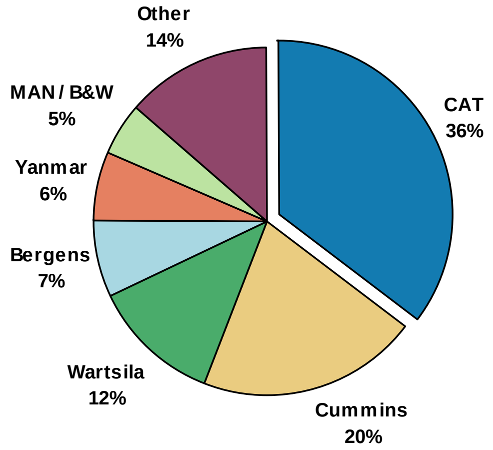
Exhibit 34

Platform Supply Vessel (PSV)

Source: Company data, Morgan Stanley Research

Exhibit 35

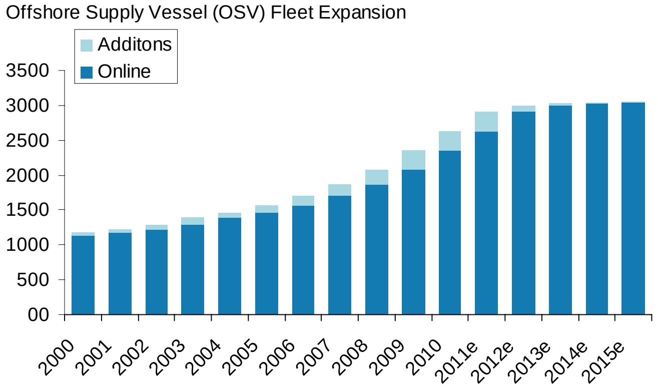
CAT has ~35% Market Share of Propulsion Engines in OSVs Currently Being Built



Note: CAT share includes engines sold under MaK brand
Source: Marcon International, Bourbon, Morgan Stanley Research

Exhibit 36

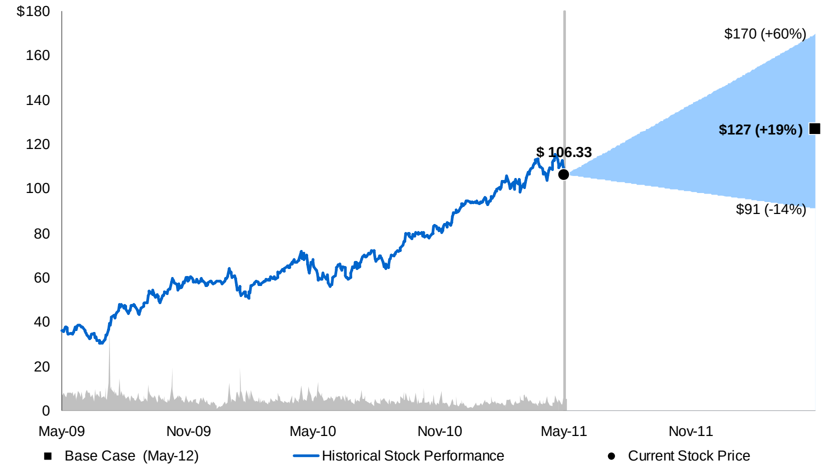
MS Oil Services Team OSV Fleet Expansion Forecasts – Few New Builds Needed After Substantial expansion



Source: ODS Petrodata, Company data, Morgan Stanley Research (2011-2015 estimates)

Risk-Reward Snapshot: Caterpillar (CAT, Overweight, Target $127)

Risk-Reward View: Upside still substantial on CPS execution and BUCY



Source: FactSet, Morgan Stanley Research

Price Target $127		Equivalent to a multiple of 14x our 2012 EPS of $9.10. Supported by a DCF model with a 9.0% cost of equity and 3% terminal growth. Downside risks to our target include a sharp macro slowdown, and a structurally higher cost base if volumes remain low.
Bull Case $170	14x 2012e Bull Case EPS of $10.75 + $20 BUCY value	Strong economic recovery pushes 2012 revenue 20% above prior peak, combined with billions in savings on materials spend (CAT has already cut supplies in half, with far greater collaboration). This scenario requires a solid economic recovery (global, not US) with a supply base positioned to support a rapid volume ramp.
Base Case $127	14x 2012e Base Case EPS of $9.10	28% incremental margins in a healthy recovery in CAT's end markets. Developed markets rebound on aging fleets and pent up demand. Mining is in early stages of a multi year upcycle, according to announced capex, and oil/gas seems healthy, though is likely the biggest risk. Incrementals assume no major production hiccups, minor SG&A/R&D leverage after Tier IV push, and some CPS, but not full success on production transformation.
Bear Case $91	13x 2012e Bear Case EPS of $7.00	Slower revenue recovery and production inefficiencies, though no true production meltdown as in '08, put downward pressure on earnings growth. Bear case assumes price competition in a weak recovery but not a full double dip. Incremental margins ~20% fail to meet company target around 25%.

Key Debates on the Stock

- Ability to produce if recovery accelerates
- Sustainability of recovery in oil/gas
- Ability to achieve 25% incremental margins throughout volume recovery
- Is rising Chinese competition a threat to upcycle profits in China and globally?
- Credit sub provisions could still be an incremental headwind

Where do we differ from Consensus?

- Re-fleeting has probably begun in Europe, a very weak market, and will add to the US recovery in 2011.
- We believe CAT and Deere will gain share in 2011 as best positioned heading into recovery.

Potential Catalysts

- Higher stimulus spending in 2011
- Oil/gas capex

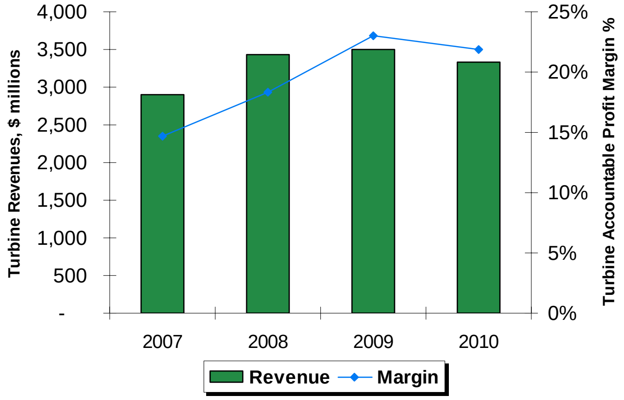
Key Downside risks

- Cost base is structurally higher: 2009 trough management was good but boosted by record margins in engines
- Re-work of parts, distribution, and supply chain carries product, customer, and production risk.
- CAT remains cyclically highly levered despite a good trough performance: a double dip would lead to substantial downside

Appendix – Overview of Solar Turbine Business

Exhibit 37

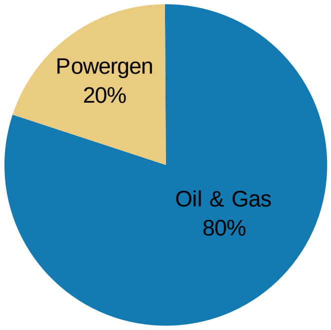
CAT Turbine Revenues and Accountable Profit Margin %



Source: Company data, Morgan Stanley Research

Exhibit 38

Solar Revenue Breakdown by End Market



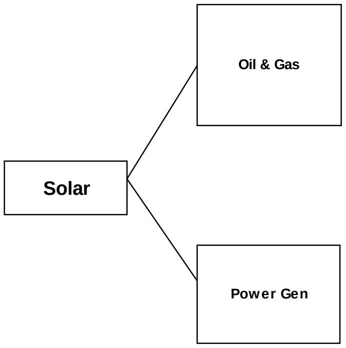
Source: Company data, Morgan Stanley Research

Solar – Profile

- ~$3.5B in revenue at 2009 peak, 2010 revenue down ~5% to ~$3.3B
- ~300+ turbine units produced a year – Prices range from $2 million to $15 million, with a roughly estimated average price of $6 million
- 13,600 unit installed base, 1.3 billion operating hours
- **~80% Oil & Gas**
  - 55% oil/gas production
  - Balance is pipeline compression, driven by new pipelines, repair, maintenance, and increased pressure on existing lines
- **~20% Power Generation**
  - Combined Heat and power (CHP) 95% of powergen
  - Distributed generation and peaking units are most of the rest of powergen, very few standby units
- Parts and Services 40-50% of revenue, ranging from refurb to construction design and build services; 80-85% of Solar revenues are international
- Selling process lasts 6 months to 3 years, sales are highly customer specific
  - Typical year is 60-70% booked at beginning of year, 2009 was close to 100%
  - 40% of revenues from strategic relationship accounts

Exhibit 39

Est. Solar Revenue Breakdown, 2010



Product	2010 Revenue	% of total	Key End Markets	Competitors
Oil/Gas Production	1,461	55%	Majors, Production Companies, FPS	GE, Siemens, Rolls Royce
Gas transmission	1,196	45%	Midstream MLPs, Majors	GE, Rolls Royce, Dresser Rand, Siemens
Total Oil & Gas	2,657	80.0%		

Product	2010 Revenue	% of total	End Markets	Competitors
Combined Heat&Power	631	95%	Plants, universities, hospitals & airports	GE, Rolls Royce, Siemens
Distributed generation	33	5%		
Total Power Gen	664	20.0%		
Total Revenue	3,321	100%		

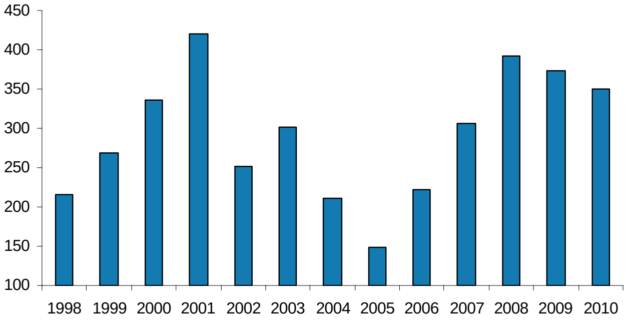
Source: Company data, Morgan Stanley Research

Appendix – Est. Solar Shipments / Mkt Share

Exhibit 40

Estimated Solar Shipments

CAT Does not disclose Solar Shipments, We Back into the Number Using Installed Base Annual Disclosure



Source: Company data, Morgan Stanley Research

Exhibit 41

Estimated Solar Market Share – ~50% of Worldwide Industrial Gas Turbines

	Mech. Drive Turbines (Ex Solar)	Powergen Turbines (Ex Solar)	Est Solar Turbines Shipped	Est Solar Share of All Turbines
2006	109	528	**185**	**23%**
2007	108	518	**264**	**30%**
2008	97	588	**350**	**34%**
2009	40	398	**383**	**47%**
CY2009	22	379	**373**	**48%**

Note: All Solar Shipments and Share figures are MS estimates, and are not precise on a yearly basis; We use estimated Solar installed base as basis for our shipment estimates Our source for industry data does not include Solar, hence the estimates ex Solar.
Source: Diesel and Gas Turbine magazine, Company Data, Morgan Stanley Research

Exhibit 42

Solar Titan 250 Increases Addressable Market

Mechanical Drive Gas Turbine Orders, Jan- Dec 2009

Output Range (MW)	Units ordered Ex Solar	Total Engine Output (MW)	Cat Solar Turbine Equivalent
1.00 to 2.0	1	1	Saturn 20
2.01 to 3.5	0	0	Centaur 40
3.51 to 5.0	0	0	Centaur 50
5.01 to 7.5	0	0	Taurus 70
7.51 to 10	0	0	Mars 90,100
10.01 to 15	5	62	Titan 130
15.01 to 20	16	257	Titan 130, 250-Launched '09
20.01 to 30	51	1391	Titan 250-Launched 2009
30.01 to 60	69	2208	none
60.01 to 120	6	517	none
120.01 to 180	0	0	none
180 & above	0	0	none
Totals	148	4436	

Source: Diesel and Gas Turbine Magazine

Exhibit 43

Industrial Turbine Competitive Landscape

Solar Turbines

		HP	MW
Saturn	**Mechanical/Power Gen**	HP	MW
	Saturn 20	1,590	1.1
Centaur	**Mechanical/Power Gen**		
	Centaur 40	4,700	3.5
	Centaur 50	6,130	3.5
Taurus	**Mechanical/Power Gen**		
	Taurus 60	7,700	5.7
	Taurus 70	10,300	7.6
Mars	**Mechanical/Power Gen**		
	Mars 90	13,200	9.8
	Mars 100	16,000	11.9
Titan	**Mechanical/Power Gen**		
	Titan 130	20,500	15.2
	Titan 250	30,000	22.3

GE

		HP	MW
GE10	**Mechanical Drive**	HP	MW
	GE 10-1	15,000	11.2
	Power Gen		
	GE10-2	15,000	11.2
PGT	**Mechanical/Power Gen**		
	PGT16	18,500	13.8
	PGT25	41,570	31
	PGT25+ G4	45,600	34
MS Frames	**Mechanical Drive**		
	MS5002A	26,250	19.5
	MS5002B	35,000	26.1
	MS5002C	38,000	28.3
	MS5002D	43,000	32
	Power Gen		
	MS5001		
	Mechanical/Power Gen		
	MS5002E	42,900	32
	Mechanical/Power Gen		
	MS6001B	58,380	40
	Power Gen		
	MS7001EA	115,630	85.4
	MS9001E	174,520	126

Rolls Royce

		HP	MW
RB211	**Mechanical/Power Gen**	HP	MW
	G62	39,600	27.5
	GT62	41,450	29.8
	GT61	44,650	32.1
	H63	50,848	42.4
Trend	**Mechanical/Power Gen**	HP	MW
	DLE (Power Gen)	69,000	51.5
	ISI (Power Gen)	85,800	64
	Trent 60 (Mechanical)	70,418	
501-K	**Mechanical Drive**	HP	MW
	501-KC5	5,500	4.1
	501-KC7	7,400	5.5
	Electrical Generation		
	501-KB5	5,230	3.9
	501-KB7	7,100	5.3
	501-KH5	8,600	6.42
Avon	**Mechanical/Power Gen**	HP	MW
	2648	21,800	16.3
	2656	22,800	17

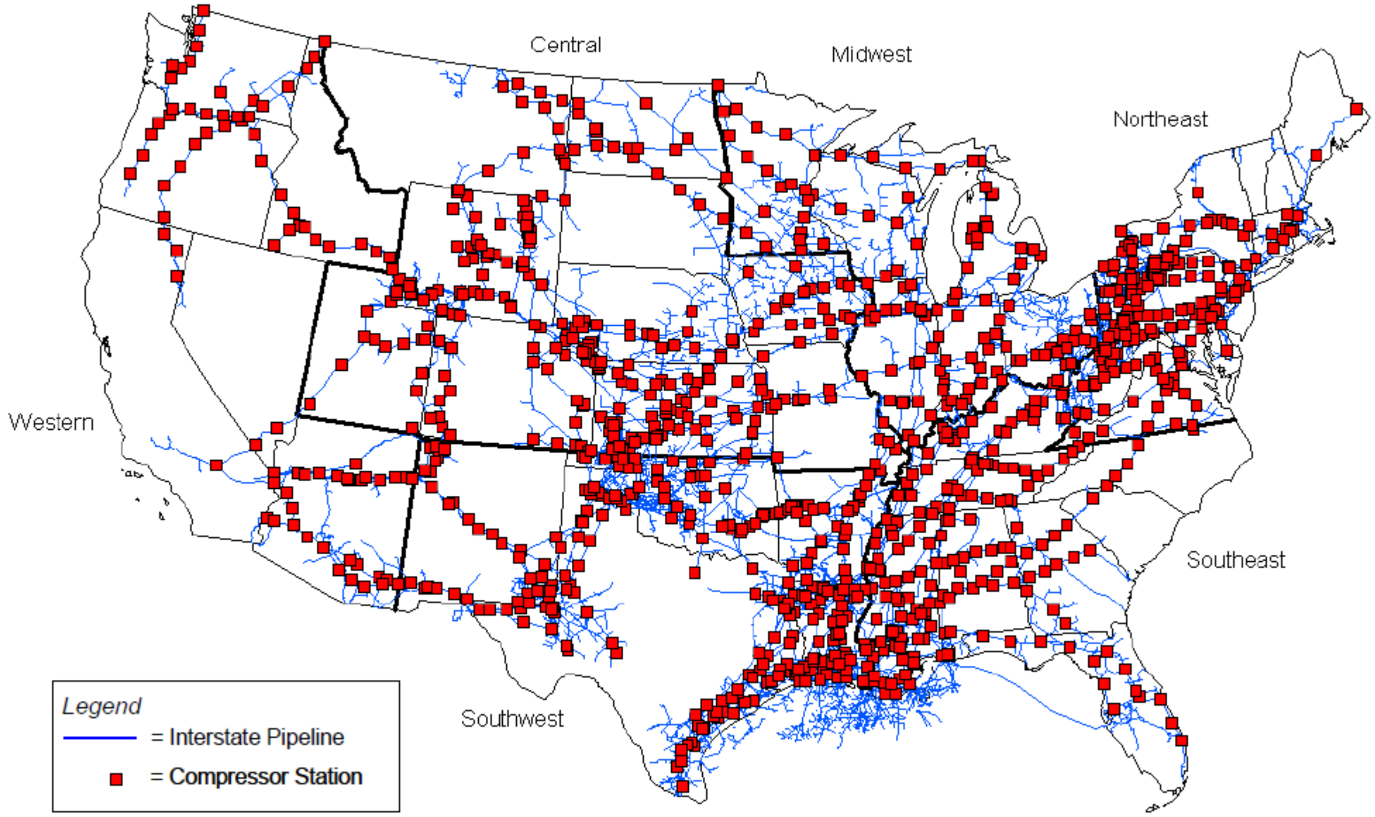
Siemens

		HP	MW
SGT	**Mechanical/Power Gen**	HP	MW
	SGT-100	6,600	4.35-5.25
	SGT-200	10,300	7.68
	SGT-400	18,000	13.4
	SGT-500	23,290	17.4
	SGT-600	34,000	25.4
	SGT-700	42,960	30.1

Source: Company Data, Morgan Stanley Research

Exhibit 44

US Pipeline and Compressor Infrastructure



Source: EIA Natural Gas Division

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(as of April 30, 2011)

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	Coverage Universe		Investment Banking Clients (IBC)		
Stock Rating Category	Count	% of Total	Count	% of Total IBC	% of Rating Category
Overweight/Buy	**1172**	**41%**	**470**	**48%**	**40%**
Equal-weight/Hold	**1158**	**41%**	**386**	**39%**	**33%**
Not-Rated/Hold	**114**	**4%**	**20**	**2%**	**18%**
Underweight/Sell	**384**	**14%**	**102**	**10%**	**27%**
Total	**2,828**		**978**		

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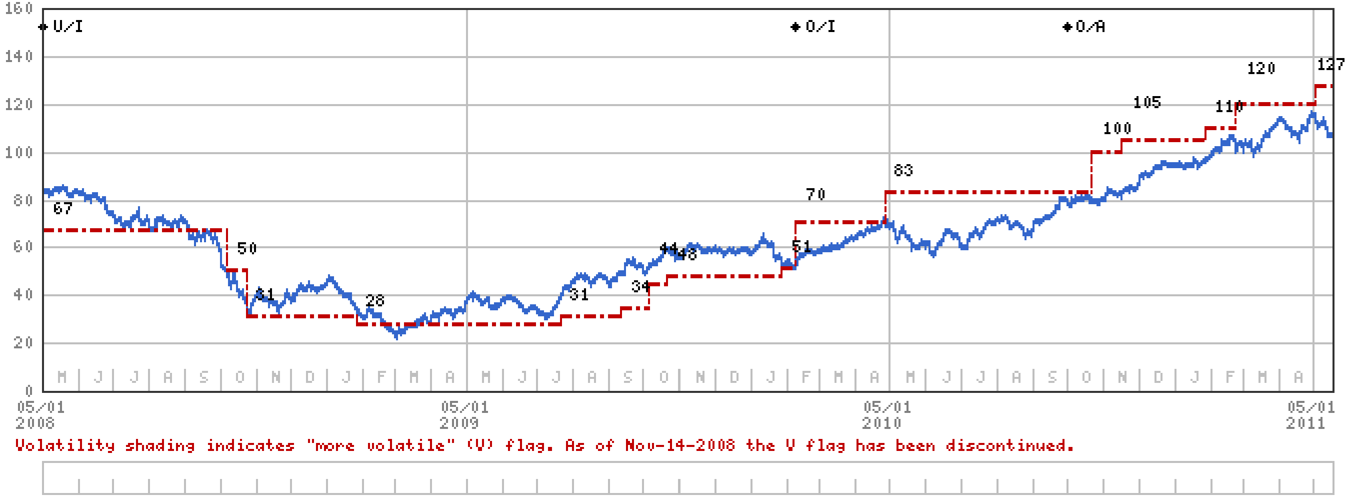
.

Stock Price, Price Target and Rating History (See Rating Definitions)

Caterpillar (CAT.N) - As of 5/16/11 in USD
Industry : Machinery



Volatility shading indicates "more volatile" (V) flag. As of Nov-14-2008 the V flag has been discontinued.

Stock Rating History: 5/1/08 : U/I; 2/9/10 : O/I; 9/30/10 : O/A

Price Target History: 12/17/07 : 67; 10/7/08 : 50; 10/23/08 : 31; 1/26/09 : 28; 7/21/09 : 31; 9/11/09 : 34; 10/5/09 : 44; 10/21/09 : 48; 1/27/10 : 51; 2/9/10 : 70; 4/26/10 : 83; 10/21/10 : 100; 11/16/10 : 105; 1/27/11 : 110; 2/23/11 : 120; 5/2/11 : 127

Source: Morgan Stanley Research Date Format : MM/DD/YY Price Target 🟥 No Price Target Assigned (NA)
Stock Price (Not Covered by Current Analyst) ▬ Stock Price (Covered by Current Analyst) 🟦
Stock and Industry Ratings (abbreviations below) appear as ◆ Stock Rating/Industry View
Stock Ratings: Overweight (O) Equal-weight (E) Underweight (U) Not-Rated (NR) More Volatile (V) No Rating Available (NA)
Industry View: Attractive (A) In-line (I) Cautious (C) No Rating (NR)

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The Americas
1585 Broadway
New York, NY 10036-8293
United States
Tel: +1 (1) 212 761 4000

Europe
20 Bank Street, Canary Wharf
London E14 4AD
United Kingdom
Tel: +44 (0) 20 7 425 8000

Japan
4-20-3 Ebisu, Shibuya-ku
Tokyo 150-6008
Japan
Tel: +81 (0) 3 5424 5000

Asia/Pacific
1 Austin Road West
Kowloon
Hong Kong
Tel: +852 2848 5200

Industry Coverage:Machinery

Company (Ticker)	Rating (as of)	Price* (05/13/2011)
Robert Wertheimer		
AGCO (AGCO.N)	E (12/07/2009)	$50.99
Bucyrus International Inc. (BUCY.O)	E (11/16/2010)	$91.26
Caterpillar (CAT.N)	O (02/09/2010)	$106.33
Cummins Inc. (CMI.N)	E (09/30/2010)	$110.29
Deere (DE.N)	E (11/22/2010)	$87.72
Eaton (ETN.N)	E (07/03/2008)	$51.92
Illinois Tool Works (ITW.N)	O (11/16/2009)	$57.95
Ingersoll-Rand (IR.N)	E (02/09/2010)	$50.12
John Bean Technologies Corp (JBT.N)	NR (10/31/2008)	$19.41
Joy Global Inc (JOYG.O)	U (11/16/2010)	$87.48
Lennox International (LII.N)	U (10/18/2010)	$48.25
Manitowoc Company Inc. (MTW.N)	O (08/03/2010)	$18.13
Navistar International Corp. (NAV.N)	O (04/11/2011)	$67.5
PACCAR Inc. (PCAR.O)	E (02/02/2011)	$51.67
Sensata Technologies Holding N.V. (ST.N)	O (04/20/2010)	$34.63
Terex (TEX.N)	U (11/05/2009)	$31.3
Wabash National Corporation (WNC.N)	O (09/30/2010)	$9.92
Westport Innovations Inc. (WPRT.O)	O (01/21/2011)	$22.72

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* Historical prices are not split adjusted.

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